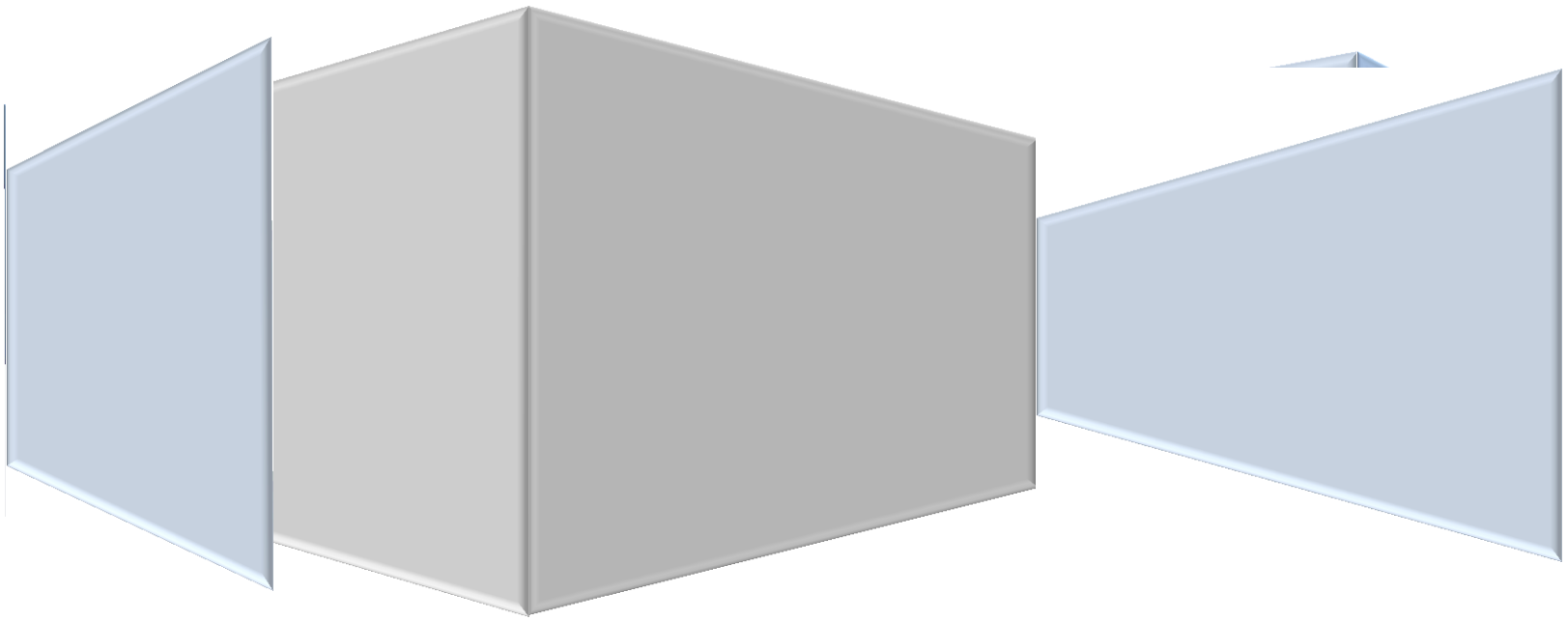
CATHEDRAL CITY

ANNEX D

LOCAL HAZARD MITIGATION PLAN

AUGUST 2012

Prepared by: John Muhr
Emergency Manager and Operations Chief



CONTACT INFORMATION

CATHEDRAL CITY

Name:	John Muhr
Title:	Emergency Manager and Operations Chief
Address:	32100 Desert Vista Rd.
City, State and Zip:	Cathedral City, CA 92234
Direct Contact:	(760) 770-8204
Fax:	(760) 328-3902
Email:	jmuhr@cathedralcity.gov

EXECUTIVE SUMMARY

The purpose of this local hazard mitigation plan is to identify the County's hazards, review and assess past disaster occurrences, estimate the probability of future occurrences and set goals to mitigate potential risks to reduce or eliminate long-term risk to people and property from natural and man-made hazards.

The plan was prepared pursuant to the requirements of the Disaster Mitigation Act of 2000 to achieve eligibility and potentially secure mitigation funding through Federal Emergency Management Agency (FEMA) Flood Mitigation Assistance, Pre-Disaster Mitigation, and Hazard Mitigation Grant Programs.

Riverside County's continual efforts to maintain a disaster-mitigation strategy is on-going. Our goal is to develop and maintain an all-inclusive plan to include all jurisdictions, special districts, businesses and community organizations rather than them writing their own plan to promote consistency, continuity and unification.

The County's planning process followed a methodology presented by FEMA and CAL-EMA which included conducting meetings with the Operational Area Planning Committee (OAPC) coordinated by Riverside County Fire – Office of Emergency Services comprised of participating Federal, State and local jurisdictions agencies, special districts, school districts, non-profit communities, universities, businesses, tribes and general public.

The plan identifies vulnerabilities, provides recommendations for prioritized mitigation actions, evaluates resources and identifies mitigation shortcomings, provides future mitigation planning and maintenance of existing plan.

The plan will be implemented upon FEMA approval.

PLAN ADOPTION/RESOLUTION

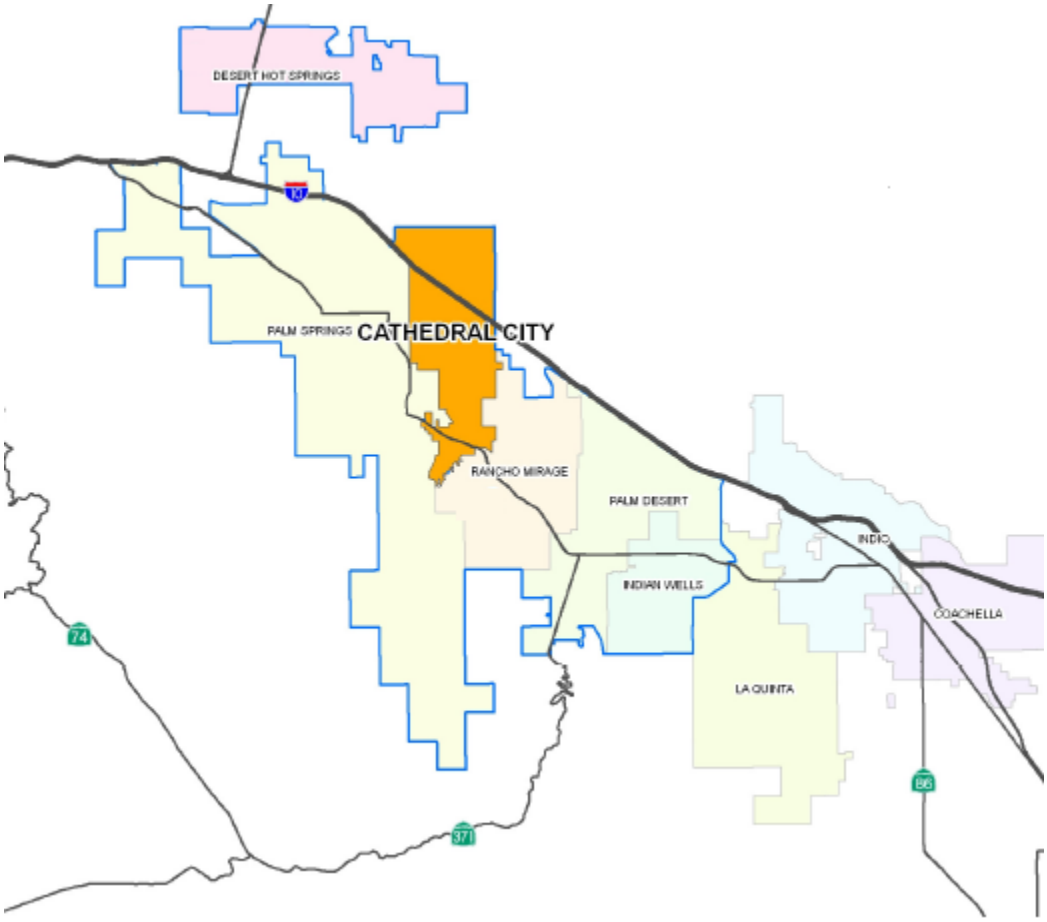
Cathedral City will submit plans to Riverside County Fire – Office of Emergency Services who will forward to CAL EMA for review prior to being submitted to FEMA. In addition, we will wait to receive an "Approval Pending Adoption" before taking the plan to our local governing bodies for adoption. Upon approval, Cathedral City will insert the signed resolution.

TABLE OF CONTENTS

PAGE BLANK INTENTIONALLY

SECTION 1.0 - COMMUNITY PROFILE

1.1 CATHEDRAL CITY MAP



1.2 BRIEF HISTORY

The City of Cathedral was established in 1925 and incorporated in 1981. Strategically located, with borders on both sides of Interstate 10, Cathedral City is a haven for expanding and relocating businesses. Cathedral City ranks in the top three cities in the Coachella Valley in population. Businesses view the region as a triangle of opportunity between Los Angeles and San Diego with Coachella Valley situated inland, approximately equal distances from each. This triangle of commercial businesses, light industry, and professional services is expanding and becoming one metropolis of continued growth.

1.3 GEOGRAPHY AND CLIMATE DESCRIPTION

Cathedral City is a corporate city in Riverside County in the Coachella Valley of California. It is approximately 24 square miles in area and is 64 miles east of the County seat, the City of Riverside. All borders of Cathedral City are within Riverside County. The Union Pacific Railroad and Interstate Highway 10 both run through the northern-most portion of the City. The Santa Rosa Mountains border the southern-most portion of the city.

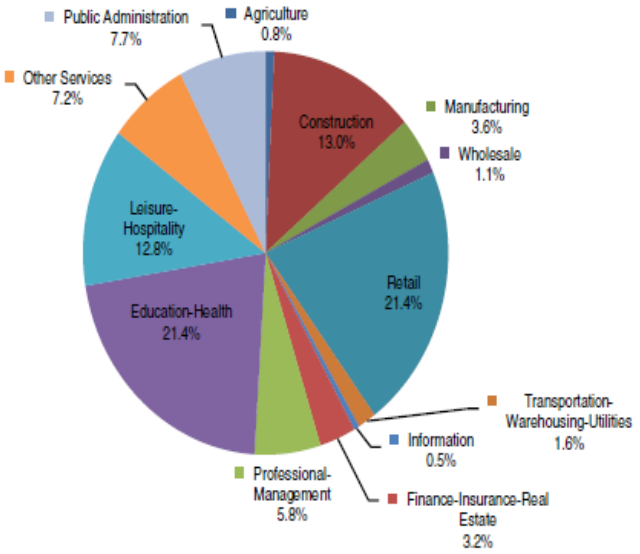
Cathedral City's climate can be described as arid most of the year, with extreme heat in excess of 120 degrees Fahrenheit anytime from June through September, and colder temperatures as low as 25 degrees Fahrenheit from December through February. Our average rainfall is less than three inches per year. Temperatures and rainfall for Cathedral City are typical of that of the rest of the Coachella Valley (eastern Riverside County).

1.4 ECONOMY DESCRIPTION

Cathedral City is primarily a bedroom community. Development in the City is 51.4% residential, 15.1% commercial, and 6.4% industrial, which limits the sales and property tax base. The largest employment fields for Cathedral City residents are hospitality and light industrial, serving the region around Cathedral City. The largest employer is the Cathedral City Automotive Group, which collectively provides work for 1,000 employees. The City has recently annexed an area at its northernmost portion of the City (Desert Hot Springs). More recently, Cathedral City has accepted a Sphere of Influence that comprises more than 200 acres of property in the unincorporated area called Thousand Palms, as well as in the incorporated city of Palm Desert.

Figure 1.4.1 Jobs by Sector for Cathedral City

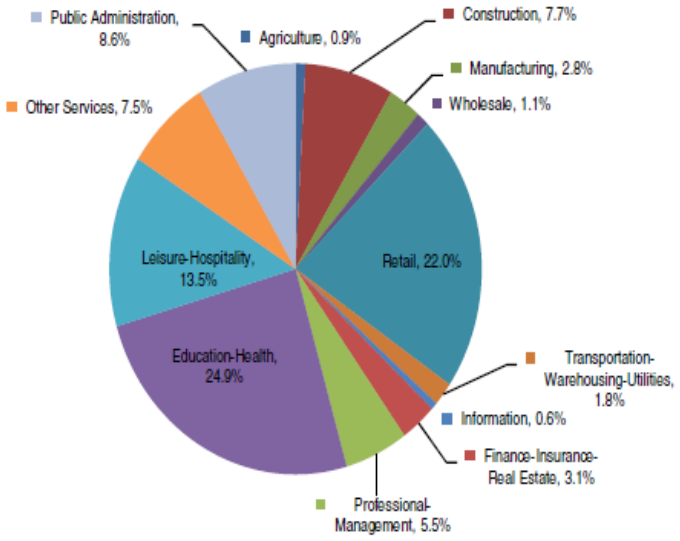
Jobs by Sector: 2007



Sources: California Employment Development Department, 2007; InfoUSA; and SCAG

- Between 2007 and 2010, there were minor changes in the share of jobs by sector in the city.
- From 2007 to 2010, the share of Education-Health Jobs increased from 21.4 percent to 24.9 percent while the share of Construction jobs declined from 13 to 7.7 percent.

Jobs by Sector: 2010



Sources: California Employment Development Department, 2010; InfoUSA; and SCAG

- In 2010, the Education-Health sector was the largest job sector, accounting for 24.9 percent of total jobs in the city.
- Other large sectors included Retail (22 percent), Leisure-Hospitality (13.5 percent), and Public Administration (8.6 percent).

1.5 POPULATION CHARACTERISTICS

The population of Cathedral City from the 2010 Census was estimated at 51,200. This was an increase in the population of 17% over 2000 Census population estimates.

Figure 1.5.1 Population Characteristics for Cathedral City

POPULATION CHARACTERISTICS

Population		
1970	#	(*1)
1980	#	(*1)
1990	30,085	(*1)
1995	36,800	(*2)
1996	37,700	(*2)
1997	38,300	(*2)
1998	38,950	(*2)
1999	40,250	(*2)
2000	42,647	(*1)
2001	44,086	(*2)
2002	45,664	(*2)
2003	47,847	(*2)
2004	49,342	(*2)
2005	50,630	(*2)
2006	51,306	(*2)
2007	52,046	(*2)
2008	51,945	(*2)
2009	52,508	(*2)
2010	52,841	(*2)
Projections		
2015	58,595	(*3)
2020	61,059	(*3)
2025	63,319	(*3)
2030	65,367	(*3)
2035	67,194	(*3)

2010 Racial & Ethnic Population (*4)

	Number	Percent
White	20,397	38.6%
African American	1,110	2.1%
Asian/Pac Islander	951	1.8%
All Other Races	1,321	2.5%
Hispanic*	29,063	55.0%
Total Population	52,841	100.0%

* Hispanic can be of any race

Vital Statistics (*5)

	2007	2008
Total Births	798	829
Birth Rate*	15.3	16.0
Total Deaths	369	363
Death Rate*	7.1	7.0

* Rates per 1,000 population

2010 Voter Registration (*7)

	Number	Percent
Democrat	7,423	42.1%
Republican	6,936	39.3%
Other	574	3.3%
Decline to State	2,699	15.3%
Total	17,632	100.0%

2010 Population by Age (*4)

	Total	Percent
0-4	3,435	6.5%
5-9	3,382	6.4%
10-14	4,016	7.6%
15-19	3,646	6.9%
20-24	3,645	6.9%
25-34	8,402	15.9%
35-44	7,292	13.8%
45-54	6,922	13.1%
55-59	2,695	5.1%
60-64	2,272	4.3%
65-74	3,752	7.1%
75-84	2,536	4.8%
85+	845	1.6%
Total	52,841	100.0%
Median Age:		34.9
Percent of County:		2.5%

2010 Population by Sex (*6)

	Number	Percent
Male	27,794	52.6%
Female	25,047	47.4%
Total	52,841	100.0%

Sources: (*1) Decennial Census, US Census Bureau
(*2) January Estimate, CA State Dept. of Finance
(*3) Riverside County Center for Demographic Research
Note: Total might not add up due to rounding.
(*4) Claritas, ACS and CA State Dept. of Finance
(*5) Riverside County Dept. of Public Health
(*6) Census, ACS and CA State Dept. of Finance
(*7) CA Secretary of State, January 2010
Comparing data between years may be problematic because of incorporations & annexations.
Projections are based on January 1, 2008 boundary; therefore current or future population in the annexed area may not be reflected in these projections.

1.6 LAND USE AND DEVELOPMENT TRENDS

The median cost of a single family home in Cathedral City was $340,000 in 2007. The median home price in 2010 was $157,500. Although Cathedral City has been considered affordable to a large segment of the lower and moderate income populations in the past, recent trends indicate that this is no longer the case.

Figure 1.6.1 Housing and Household Characteristics

HOUSING & HOUSEHOLD CHARACTERISTICS

Housing Units

1970	#	(*1)
1980	#	(*1)
1990	15,229	(*1)
2000	17,893	(*1)
2001	18,304	(*2)
2002	18,787	(*2)
2003	19,507	(*2)
2004	20,023	(*2)
2005	20,670	(*2)
2006	21,016	(*2)
2007	21,511	(*2)
2008	21,561	(*2)
2009	21,538	(*2)
2010	21,527	(*2)
Projections		
2015	23,627	(*3)
2020	25,127	(*3)
2025	26,627	(*3)
2030	28,127	(*3)
2035	29,627	(*3)

Housing Units by Type

	2000 (*1)	Percent	2010 (*2)	Percent
Single Detached	8,824	49.3%	11,550	53.7%
Single Attached	2,587	14.5%	2,659	12.3%
Multi-Family: 2 to 4	2,280	12.7%	2,428	11.3%
Multi-Family: 5 Plus	1,566	8.8%	2,035	9.4%
Mobile Homes	2,636	14.7%	2,855	13.3%
Total Units	17,893	100%	21,527	100.0%
Occupancy	14,027	78.4%	16,905	78.5%
Vacancy	3,866	21.6%	4,622	21.5%

Median Home Price (*4)

2001	$150,000
2002	$168,500
2003	$196,000
2004	$265,000
2005	$345,000
2006	$370,000
2007	$340,000
2008	$218,000
2009	$155,000
2010*	$157,500

*September 2010

Persons Per Occupied Housing Unit (*2)

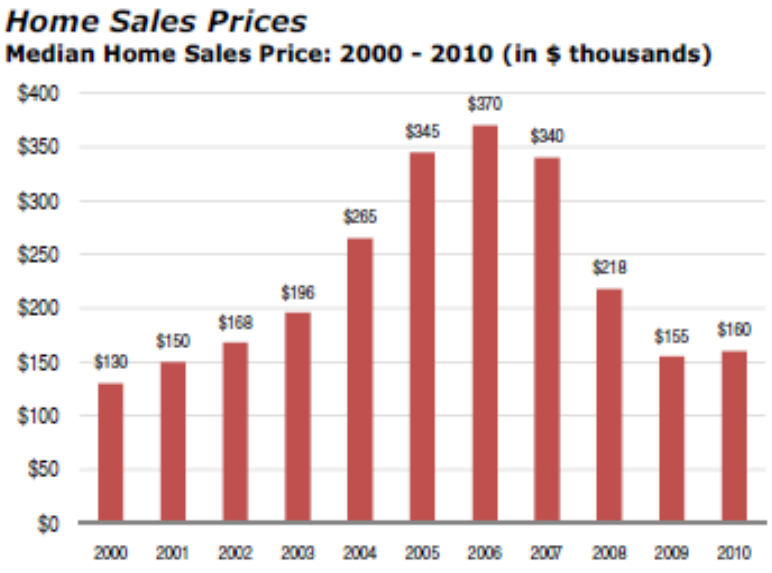
2000	3.03
2010	3.12

Housing Unit Building Permits (*5)

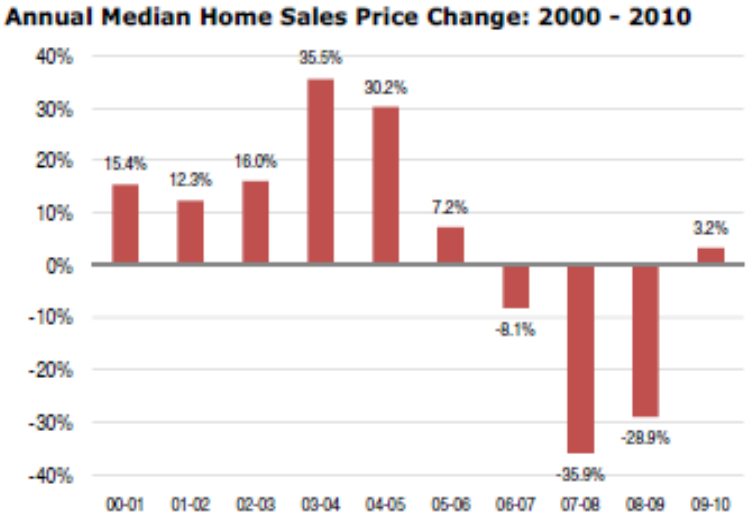
	Single-Family Structure	All Multi-Family Structure	Total Units
1991	211	68	279
1992	214	31	245
1993	95	16	111
1994	179	13	192
1995	182	10	192
1996	184	9	193
1997	197	12	209
1998	216	17	233
1999	225	19	244
2000	219	27	246
2001	492	116	608
2002	641	27	668
2003	386	417	803
2004	336	139	475
2005	412	71	483
2006	166	6	172
2007	40	10	50
2008	10	0	10
2009	2	0	2

Sources: (*1) Decennial Census, US Census Bureau
(*2) January Estimate, CA State Dept. of Finance
(*3) Riverside County Center for Demographic Research
(*4) DataQuick Reports
(*5) US Department of Housing & Urban Development, State of the Cities Data Systems
Note: Totals might not add up due to rounding.
Comparing data between years may be problematic because of incorporations & annexations.
Projections are based on January 1, 2008 boundary; therefore current or future dwelling units in the annexed area may not be reflected in these projections.

Figure 1.6.2 Home Sales Prices for Cathedral City 2000-2010



Source: MDA DataQuick, 2010



Source: MDA DataQuick, 2010

- Between 2000 and 2006, median home sales price increased 185 percent going from $130,000 to $370,000.
- Median home sales price decreased by 56.8 percent between 2006 and 2010.
- In 2010, the median home sales price in the city was $160,000, $40,000 lower than that in the county overall.
- Note: Median home sales price reflects resales of existing homes and simply provide guidance on the market values of homes sold in the city.
- Between 2000 and 2006, annual home sales price change was between 7.2 and 35.5 percent.
- Between 2006 and 2010, the change in annual home sales prices was between -35.9 and 3.2 percent.

Figure 1.6.4 City of Cathedral City Land Use Acreage Summary

City of Cathedral City
Land Use Acreage Summary (Post 2009)

Land Use Category	Density	Acres in City	% of City Acres
HR Hillside Reserve	1 du/20ac	542	3.9%
RE Estate Residential	0-2 du/ac	463	3.4%
RL Low Den. Residential	2-4.5 du/ac	4,272	31.0%
RR Resort Residential	3-6.5 du/ac	1,387	10.0%
RM Med. Den. Residential	4.5-10 du/ac	387	2.8%
RH High Den. Residential	11-20 du/ac	22	0.2%
Residential Subtotal		**7,073**	**51.4%**
CG General Commercial		779	5.7%
CN Neighborhood Commercial		34	0.2%
DTC Downtown Commercial		155	1.1%
Commercial Subtotal		**968**	**7.0%**
Mixed-Use Neighborhood		384	2.8%
Mixed Use Urban		734	5.3%
Mixed-Use Subtotal		**1,118**	**8.1%**
BP Business Park		386	2.8%
I Industrial		494	3.6%
Industrial Subtotal		**880**	**6.4%**
P Public/Quasi-Public		**419**	**3.0%**
OS-P Open Space-Public		2,176	15.8%
OS-PV Open Space-Private		98	0.7%
OS-W Open Space-Watercourse		758	5.5%
OS-O Open Space-Other		283	2.1%
Open Space Total		**3,315**	**24.1%**
Total		**13,773**	**100%**

SECTION 2.0 - PLANNING PROCESS

2. 1 PARTICIPATION IN REGIONAL (OA) PLANNING PROCESS

Collaboration for our plan was with Department Heads within Cathedral City's local government, and with the delegate(s) of the City of Rancho Mirage. The City

(See Section 3.4 of Riverside County OA MJHMP – Pages 93-94).

2. 2 LOCAL PLANNING PROCESS

Representatives from Cathedral City departments collaborated on an as-needed basis to identify and prioritize appropriate mitigation strategies. Personnel involved in these meetings included senior management and staff from the list herein. Many of our strategy points have been derived from the City of Cathedral City General Plan.

Planning team members:

- John Muhr, Battalion Chief, Fire Department
- Patrick Milos, Director, Public Works Department
- Bill Simons, City Engineer
- Leisa Lukes, City Planner

Due to time and resource constraints, public meetings were not called.

2. 3 PLANS ADOPTED BY RESOLUTION

Upon approval by FEMA, the LHMP will be presented to the City Council in a public meeting for adoption via an official Resolution.

SECTION 3.0 – HAZARD UPDATES AND MITIGATION ACTIONS

3.1 HAZARD UPDATES FROM 2005 PLAN

The hazards in Cathedral City include the same as much of Riverside County, including earthquake, flooding and fires. Additionally, Cathedral City shares two common hazards with its neighboring cities: The Union Pacific Railroad's primary southern route to and from the rest of the country runs through the north end of the city, as does a natural gas supply pipeline that serves a large portion of the southern United States.

Cathedral City's western border is less than 300 yards from the runways of the Palm Springs International Airport. There are no changes in hazards since approval of the 2005 Local Hazard Mitigation Plan. (See Hazards in Section 4.2 – Table 4.1 of Riverside County OA – MJHMP – Page 108).

3.2 MITIGATION PROJECTS

The City of Cathedral has identified several mitigation projects. The following projects are in progress:

1. Cathedral Canyon Bridge Project

Project Description and Scope:

The project involves replacement of an existing 4-lane low water crossing with a new 4-lane all-weather bridge, approximately 650 feet long, over the Whitewater River on Cathedral Canyon Drive. Cathedral Canyon Drive is adopted as an Indian Reservation Road and is No. 15 of the top 20 traffic growth roadways in the Coachella Valley. The proposed new bridge will be constructed to fit within the existing 88 feet of City right-of-way to accommodate a raised center median, four (4) travel lanes, two (2) sidewalks, and two (2) Class II bike lanes (striped on paved). Depending on the touchdown points of the final bridge profile grade at approaches, the proposed roadway improvements will extend approximately from Paseo Azulejo in the south to Canyon Shores Drive in the north. The riverbed immediate upstream and downstream from the Cathedral Canyon Drive will be re-graded to accommodate the required design water flow.

Project Need and Purpose:

The project is a safety project that provides drainage improvements and an elevated all-weather bridge to eliminate potential access and safety problems when vehicles or pedestrians try to cross the flooded low water crossing in wet seasons.

Benefits of Project:

- Improve traffic safety and accessibility
- Improve reliability of goods movement
- Improve traffic flow

Project Funding:

The project is funded by the Federal Highway Bridge Program (HBP) Funds administrated by Caltrans Local Assistance.

The preliminary estimated project cost is $18.4 million (Year 2008 dollars), and is expected to begin in 2017

Traffic Handling During Construction:

Stage construction will be implemented. Two (2) travel lanes with one lane in each direction and a pedestrian sidewalk will be maintained at all times during the construction.

Right-of-Way Need:

There will be no right-of-way acquisition. Temporary construction easement and permanent easement for channel and approach roadway improvements are expected.

Major Stakeholders:

City of Cathedral City (**Lead Agency**), California Department of Transportation (Caltrans), Federal Highway Administration (FHWA), Coachella Valley Association of Governments (CVAG), Riverside County Flood Control & Water Conservation District (RCFC&WCD), Coachella Valley Water District (CVWD), Agua Caliente Band of Cahuilla Indians (ACBCI), Regulatory Agencies, Utility Companies, Desert Cove Golf Resort Developer, Golf Course upstream of Cathedral Canyon Drive, Property Owners etc.

2. Eagle Canyon Drainage Project

Eagle Canyon is located south of Cathedral City and Palm Springs in the Santa Rosa Mountains. Flood waters coming out of the canyon threaten loss of life and property, as well as discourage economic development in the commercial corridor downstream.

Riverside County Flood Control and Water Conservation District (RCFCWCD) Zone 6 has allocated funds to design and partially fund a dam and related improvements to control storm water run-off, protect lives and property and open up land for revenue-producing development.

Plans for the proposed dam, Line 41 in Palm Springs and related improvements are finished.

(See Appendix C for the complete Eagle Canyon Dam and Debris Project Initial Study conducted in February 2008).

Figure 3.2.1 Cathedral Canyon Bridge Project

PROJECT FACT SHEET

Cathedral Canyon Drive Low Water Crossing Replacement (New Bridge) at the Whitewater River

Federal Project No.: BR-NBIL (504)

City of Cathedral City

Project Location:

Regional Map

Vicinity Map

Figure 3.2.2 – Proposed Eagle Canyon Dam

3.3 BRIEF STATEMENT OF UNIQUE HAZARDS

Cathedral City has experienced three disasters over the last seven years:

State and Federally declared disaster in January, 2010 (FEMA 1884-DR):

- **January/February 2010** - The five areas (projects) involved in this disaster were Cathedral Canyon Wash, 68000 region of Ramon Rd., Varner Rd., Vista Chino x Horizon, Date Palm x Baristo Rd. and Ramon Rd., and Vista Chino x Landau. Temporary mitigation included barricading, sandbagging and infrastructure repairs. Permanent mitigation is speculative of a bridge at the Cathedral Canyon / Whitewater Channel crossing.

Local disasters included:

- **July 2007** - This flood originated in Eagle Canyon and included extreme mud slides that consumed the southeastern most portion of the city. While the most significant impact of this flood/mudslide was to businesses and commuters, six residences (mobile home properties) were destroyed. The Cathedral City Fire Dept. performed one swift water rescue. Mitigation included mud removal from roadways and business. Because this flood was the result of a breach in a levy located on tribal land, a long term mitigation project is not an option for Cathedral City, and this event is likely to occur again in the future.

- **December 2010** - This event caused minimal damage, and costs for mitigation were predominantly force accounts and heavy equipment operations.

- **August 2012 –** Eagle Canyon flooded again causing the closure of Palm Canyon and flooded several businesses and homes. Mud removal and road clearing took nearly two days to clear. Again, three motorists were left stranded and were rescued by police and the local towing agency.

3.4 MITIGATION STRATEGY PROJECT UPDATES FROM 2005

- The City Wide Flood Control Proposal from 2005 is not complete due to lack of funding. The City of Cathedral is in the process of identifying funding streams to secure the proposal expense of $47 million.

SECTION 4.0 – HAZARD IDENTIFICATION AND RISK ASSESSMENT

4.1 HAZARD REVIEW AND SUMMARY

The City of Cathedral Planning Team has reviewed and identified in the table below a list of critical facilities and other community assets identified as important to protect in the event of a disaster. There were no changes in priorities since the approval of the 2005 LHMP Plan.

4.2 CRITICAL FACILITIES AND INFRASTRUCTURES

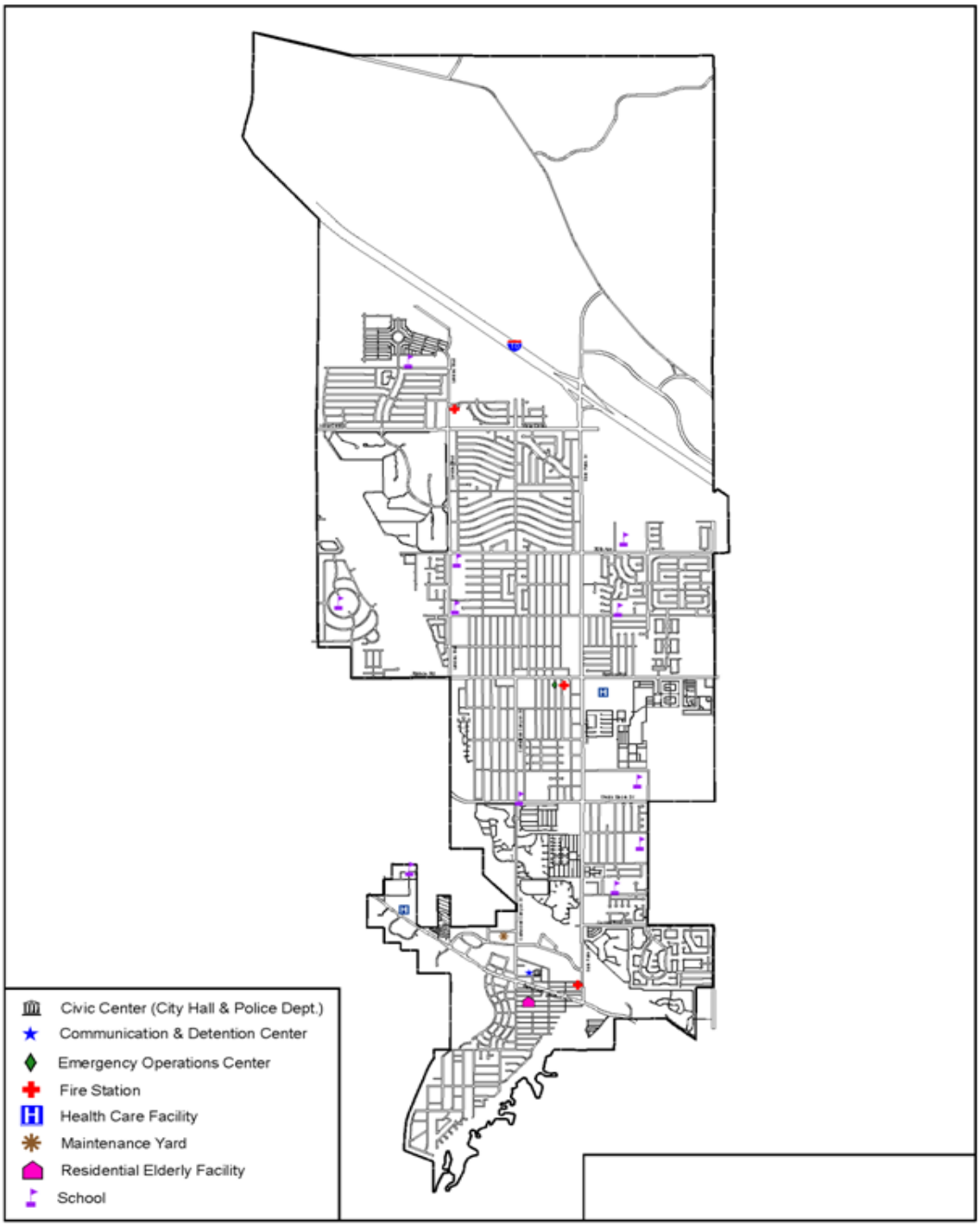
A critical facility may be defined as one that is essential in providing utility or direction either during the response to an emergency or during the recovery operation. An inventory of critical facilities in Cathedral City is from the Cathedral City General Plan, June 2009 rev. The following table lists critical facilities and other community assets identified by Cathedral City's planning team as important to protect in the event of a disaster.

Figure 4.2.1 Critical Facilities Type for Cathedral City

CRITICAL FACILITIES TYPE	NUMBER
Airports	0
Communications Centers	1
Detention Centers	1
Emergency Command Centers	2
Emergency Operations Centers	1
Fire Departments	1
Health Care Facilities	2
Law Enforcement Facilities	1
Maintenance Yards	2
Residential Elderly Facilities	1
Schools and Day Care Facilities	10
Public Utilities—Water/Sewer	0
Total	22

Source: Cathedral City General Plan Rev. 2009

Figure 4.2.2 - Critical Facilities Map Cathedral City



4.3 ESTIMATING POTENTIAL LOSS

(Please refer to Riverside County Operational Area MJHMP Section 4.5 Estimated Property Loss Figure 4-0-15 Riverside County Property Values for Cathedral City Pages 144-145).

4.4 ASSET TABLE/REPLACEMENT VALUE

Name of Asset	Replacement Value ($)	Hazard Specific Info.
City Hall	$2,817,090	
Fire Station 410/EOC	$4.5 Million	
Fire Station 411		
Fire Station 412		Underground Storage Tank
Fire Station 413		
Police Department	$1,076,451	
Palm Springs Unified School District (9 schools)	N/A	
King's School	Not Available	
First School	Not Available	
Calvary Christian School	Not Available	
Tierra Del Sol Senior Housing	Not Available	
Desert Imax Theater	Not Available	
Mary Pickford Theater	Not Available	
Doral Resort	Not Available	

4.5 IDENTIFICATION OF RISKS AND VULNERABILITIES

Figure 4.5.1 – Table Ranking of Hazards for Cathedral City

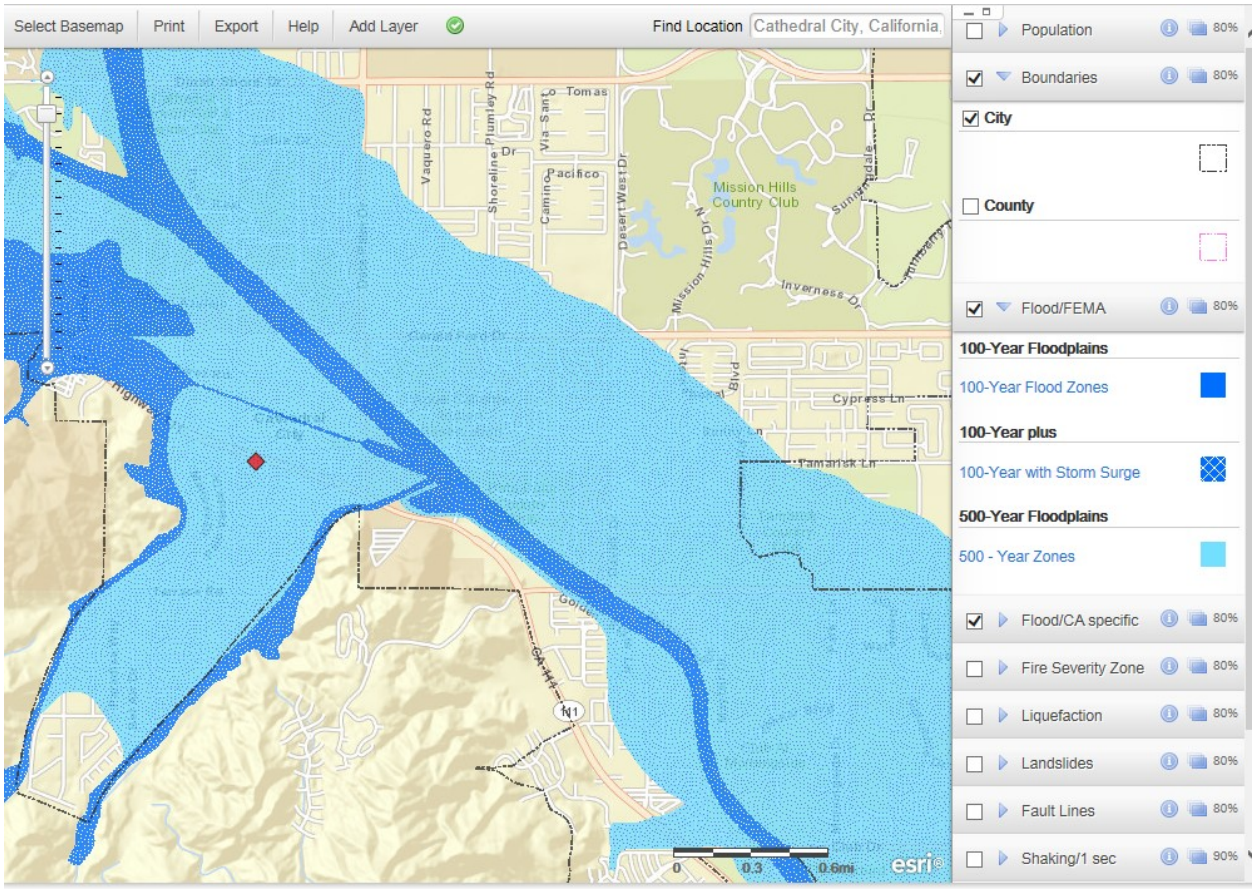
HAZARD	RANKING 1 = High / 4=Low		RANKING
	SEVERITY	PROBABILITY	1 - 19
EARTHQUAKE	**3**	**3**	**2**
WILDLAND FIRE	**2**	**2**	**12**
FLOOD	**3**	**3**	**1**
OTHER NATURAL HAZARDS			
DROUGHT	**2**	**4**	**7**
LANDSLIDES	**1**	**3**	**14**
INSECT INFESTATION	**3**	**4**	**13**
EXTREME SUMMER/WINTER WEATHER	**3**	**4**	**4**
SEVERE WIND EVENT	**2**	**4**	**5**
AGRICULTURAL			
DISEASE/CONTAMINATION	**2**	**2**	**15**
TERRORISM	**1**	**2**	**16**
OTHER MAN-MADE			
PIPELINE	**2**	**2**	**11**
AQUEDUCT	**0**	**0**	**19**
TRANSPORTATION	**2**	**3**	**8**
POWER OUTAGE	**3**	**3**	**3**
HAZMAT ACCIDENTS	**2**	**3**	**6**
NUCLEAR ACCIDENT	**0**	**0**	**18**
TERRORISM	**2**	**2**	**9**
CIVIL UNREST	**2**	**2**	**10**
JAIL/PRISON EVENT	**1**	**1**	**17**
MEDICAL			
PANDEMIC			

1. Flood - Severity - 3, Probability - 3, Ranking - 1

Heavy rain can lead to problems with storm drainage and create localized flood problems. According to the City of Cathedral City Storm Drain Master Plan, there are several flooding problem areas in the City. These areas are primarily a result of undersized pipes where the runoff exceeds the pipe capacity even for minor storms, damaged curb and gutters where the flow lines have been disrupted due to raised gutters and other obstructions, or damaged drain pipes.

The damaged lines are non-specific to any particular area of the City. Storm drain pipes are some of the oldest in the Coachella Valley. The undersized lines are located along the Whitewater Channel, and in various traffic arteries in the City (Date Palm Dr., Ramon Rd., Vista Chino, and Varner Rd.)

The areas that have curb and gutter flow line damage are generally in the areas where undersized lines are located. (See Riverside County OA MJHMP Section 5.3.2 Pages 164-195).



2. Earthquake - Severity - 3, Probability - 3, Ranking - 2

Cathedral City is located in a Severe Seismic Hazard Zone. The nearest active earthquake faults are located in the northeast portion of the City. The plan area has experienced several noticeable ground movement incidents in the last five years, but no local damage was sustained. (See Riverside County OA MJHMP Section 5.3.3 Pages 196-218).

3. Severe Weather: Extreme Heat/Cold- Severity - 3, Probability- 4, Ranking - 4

The City has a cooling station plan that designates the following locations as such:

- Emergency Operations Center
- Senior Center located at 37-171 West Buddy Rogers Avenue.

(See Riverside County OA MJHMP Section 5.3.4 Pages 219-226, Section 5.3.6 Pages 231-237 and Section 5.3.7 Page 238).

4. Drought - Severity - 2, Probability - 4, Ranking - 7

The City of Cathedral City's risks or vulnerabilities from drought do not differ from the rest of the planning area. (See Riverside County OA MJHMP Section 5.3.5 Pages 227-230).

Other Hazards

Although ranked of lower planning significance relative to other hazards, the following information about agricultural hazards, dam failure, and transportation hazards/hazardous materials release should still be noted.

5. Agricultural Hazards - Severity -2, Probability – 2 Ranking – 16

Not applicable for Cathedral City. (See Riverside County OA MJHMP Section 5.5 Pages 295-306).

6. Dam Failure - Severity - , Probability - Ranking – NA

Not applicable for Cathedral City. (See Riverside County OA MJHMP Section 5.4.1 Pages 261-270).

7. Technological Hazards (Transportation Hazards/Hazardous Materials Release) Severity - , Probability -, Ranking – NA

Along with the potential for death and injuries from large-scale motor vehicle accidents, there is the potential for hazardous material spills or fires as numerous commercial transportation vehicles travel the highways and freeways with various types and quantities of hazardous materials.

- U.S. Interstate 10
- High Pressure Natural Gas Pipeline
- Union Pacific Railroad

The Union Pacific Railroad is a combination commercial freight and passenger transportation system. Large quantities and numerous types of hazardous materials are transported through Cathedral City by rail on a daily basis. Due to perpetually increasing rail and vehicle traffic in Cathedral City, the risk of a significant disaster increases respectively.

Of particular concern is the large number of liquefied petroleum gas vessels that are transported on the system. A derailment and fire, with large exploding liquefied petroleum gas vessels, could cause widespread damage to Cathedral City, as has happened in other communities across the country.

Large quantities of hazardous materials are transported through Cathedral City as they travel from Los Angeles to destinations throughout the United States. (See Riverside County OA MJHMP Section 5.4.3 Pages 277-281 and Section 5.4.4 Pages 282-284).

SECTION 5.0 – COMMUNITY RATING SYSTEM

5.1 REPETITIVE LOSS PROPERTIES

Cathedral City does not recognize additional risks or vulnerabilities that differ from the rest of the planning area and do not have any repetitive loss properties.

5.2 NATIONAL FLOOD INSURANCE PROPERTIES

Cathedral City is currently participating in the National Flood Insurance Program. We also provide information and links on our website for residents and future residents to determine if their property lies in a Special Flood Hazard Area (SFHA).

a. ***Describe participation in NFIP, including any changes since previously approved plan.*** There have been no changes since approval of 2005 Local Hazard Mitigation Plan.
b. ***Date first joined NFIP***. 5/1/1985
c. ***Identify actions related to continued compliance with NFIP***. See summarized actions in section i below.
d. ***CRS member?*** No
e. ***CRS class?*** N/A
f. ***Describe any data used to regulate flood hazard area other than FEMA maps***. Environmental Impact Study and Eagle Canyon Dam Study
g. ***Have there been issues with community participation in the program*****?** No
h. ***What are the general hurdles for effective implementation of the NFIP?*** None
i. ***Summarize actions related to continued compliance with NFIP (c-2 and c-4)***

1. Sewer and street improvements were procured for homes that were identified as having sub-standard infrastructures. Project completed in 2007.
2. Continue to provide National Flood Insurance Brochures to residents that reside in flood zone.
3. The City of Cathedral City regulates construction and development in special flood hazard areas to ensure that buildings will be protected from flood damage. Elevating flood hazard areas with earth (filling) and similar projects are prohibited in certain areas, specifically within designated floodways. Houses substantially damaged by fire, flood, or any other cause must be elevated to or above the flood level when they are repaired. Specific flood damage prevention regulations may be obtained from the City of Cathedral City Community Development Department and Engineering.
4. Buildings located in a floodplain area, homeowners or future owners are advised to buy flood insurance because it is required by most mortgage lenders.
5. The City of Cathedral notifies residents in flood zone areas when we receive Notice of Map Change Letters.

SECTION 6.0 - CAPABILITIES ASSESSMENT

6.1 REGULATORY MITIGATION CAPABILITIES

Figure 6.1.1- Regulatory Mitigation Capabilities for Cathedral City

Regulatory Tool	Yes/No	Comments
General plan	Yes	Comprehensive General Plan for the City of Cathedral City, Amended 2009
Zoning ordinance	Yes	
Subdivision ordinance	Yes	
Site plan review requirements	Yes	
Growth management ordinance	Yes	
Floodplain ordinance	Yes	
Other special purpose ordinance (storm water, water conservation, wildfire)	Yes	Storm water: CCMC 13.50.170, 8.24070. Wildfire: VHFHSZ, adopted 2007
Building code	Yes	
Fire department ISO rating	Yes	Rating 3/9
Erosion or sediment control program	Yes	AQMD PM10 compliance
Storm water management program	Yes	City of Cathedral City Storm Drain Master Plan, 2009 The City of Cathedral City's risks or vulnerabilities from drought do not differ from the rest of the planning area.
Capital improvements plan	Yes	Five-year plan; updated annually
Economic development plan	Yes	
Local emergency operations plan	Yes	Emergency Operations Plan, Amended 2010
Other special plans		
Flood Insurance Study or other engineering study for streams	Yes	FEMA Flood Insurance Study, 2008

The Cathedral City General Plan reflects the City's long-range aspirations (15-20 years) of physical form and amenity and provides guidance for developmental regulations, such as zoning and subdivision ordinances. Two of the plans goals, in particular, support hazard mitigation. These goals and their policies are included below.

Seismic Hazards: Geotechnical Element

Goals for achieving and maintaining safety from seismic events include a focus on the physical characteristics of the City as related to our geological setting. The rocks and sediments exposed at the surface of the planning area, which can be classified based on their age, include:

1) Mesozoic and older (66 million years old and older) rocks in the Santa Rosa Mountains,

2) Pleistocene (11,000 to 1.6 million years old) sediments on Edom Hill, Flat Top Mountain, and the northwestern portion of the planning area, and

3) Holocene (0-11,000 years old) sediments on the valley floor.

The distribution of these sediments within the planning area is described in detail on page V-1 of the General Plan. Their geologic and hydrologic characteristics, as well as wind erosion, are responsible for a number of geologic hazards and engineering challenges, which are described throughout this element of the General Plan.

Plans to mitigate/minimize eminent destruction and associated loss of life and property during and immediately after a seismic event are outlined on pages V-20 to V-23 of the General Plan.

Flooding and Hydrology Element

Goals for achieving and maintaining safety from flooding events include a focus on the physical characteristics of the City as related to our proximity to manmade channels and natural floodplains.

The General Plan details rainfall, drainage, channel and geotechnical effects on our risk for flood, and plans for flood control. City goals and programs are outlined in detail in pages V-34 to V-36 of the General Plan.

Hazardous and Toxic Materials Element

Goals for achieving and maintaining safety from Hazardous and Toxic Materials include disposal, transportation and management plans as outlined in the General Plan, pages V-57 to V-59.

6.2 ADMINISTRATIVE/TECHNICAL MITIGATION CAPABILITIES

Figure 6.2.1 - Administrative and Technical Mitigation Capabilities for Cathedral City

Personnel Resources	Yes/No	Department/Position
Planner/engineer with knowledge of land development/land management practices	Yes	Planning Department
Engineer/professional trained in construction practices related to buildings and/or infrastructure	Yes	City Engineer and Building Official
Planner/engineer/scientist with an understanding of natural hazards	Yes	City Engineer and Planning Department
Personnel skilled in GIS	Yes	Planning Department
Full time building official	Yes	Building Official
Floodplain manager	Yes	Planning Department
Emergency manager	Yes	Fire Battalion Chief
Grant writer	Yes	Fire Battalion Chief
Other personnel	Yes	Fire Department Support Staff
GIS Data—Land use	Yes	Planning Department
GIS Data—Links to Assessor's data		
Warning systems/services (Reverse 9-11, outdoor warning signals)	Yes	Fire Department and Dispatch Center
Other		

6.3 FISCAL MITIGATION CAPABILITIES

Figure 6.3.1 -- Fiscal Mitigation Capabilities for Cathedral City

Financial Resources	Accessible/Eligible to Use (Yes/No)	Comments
Community Development Block Grants	Yes	
Capital improvements project funding	Yes	
Authority to levy taxes for specific purposes	Yes	With voter approval
Fees for water, sewer, gas, or electric services	Yes	
Impact fees for new development	Yes	
Incur debt through general obligation bonds	Yes	With voter approval
Incur debt through special tax bonds	Yes	With voter approval
Incur debt through private activities	No	
Withhold spending in hazard prone areas	n/a	

6.4 MITIGATION OUTREACH AND PARTNERSHIPS

Cathedral City has an existing water responsible program and annual fire safety programs in schools and throughout the year at special community events.

Cathedral City Fire Department recently agreed to an automatic aid agreement for fire and emergency medical services with Riverside County Fire. They also have mutual aid agreements with county fire department. (See Riverside County OA MJHMP Section 7.5 Page 337).

6.5 FUNDING OPPORTUNITIES

The City of Cathedral has the same funding opportunities as Riverside County Operational Area. Please refer to Section 7.4 and Table 7.4 on pages 327-336 of the Riverside County Multi-Jurisdictional Hazard Mitigation Plan for list of funding sources available.

SECTION 7.0 - MITIGATION STRATEGIES

7.1 GOALS AND OBJECTIVES

Cathedral City's mitigation goals are outlined in the General Plan. Developments of strategies for mitigation are on-going but include the following existing programs:

- **Goal 1:** Provide Protection for People's Lives from All Hazards.

  Objective 1.1: Provide timely notification and direction to the public of imminent and potential hazards.

  Objective 1.2: Protect public health and safety by preparing for, responding to, and recovering from the effects of natural or technological disasters.

  Objective 1.3: Improve community transportation corridors to allow for better evacuation routes for public and better access for emergency responders.

- **Goal 2**: Improve Community and Agency Awareness about Hazards and Associated Vulnerabilities That Threaten Our Communities.

  Objective: 2.1: Increase public awareness about the nature and extent of hazards they are exposed to, where they occur, what is vulnerable, and recommended responses to identified hazards (i.e. both preparedness and response).

2.1.1: Create/continue an outreach program, provide educational resources, and develop and provide training. Specifically, we will conduct recruitment and training of Community Emergency Response Teams.

- **Goal 3**: Improve the Community's Capability to Mitigate Hazards and Reduce Exposure to Hazard Related Losses

Objective 3.1: Reduce damage to property from an earthquake event.

3.1.1: Adopt/maintain building codes to meet required earthquake standards.

Objective 3.2: Reduce flood and storm related losses.

3.2.1: Provide for better collection of data related to severe weather events.

3.2.2: Reduce localized flooding within the City's storm drain systems.

3.2.2.1: Implement better drainage to accommodate heavy rains that cause flooding.

Objective 3.3: Reduce hazards that adversely impact the agricultural industry.

3.3.1: Promote and protect the viability of agriculture and further the County's economic development goals.

3.3.1.1: Control invasive species.

3.3.1.2: Identify and lessen severe heat impacts.

Objective 3.4: Minimize the impact to the City due to reoccurring drought conditions that impact both ground water supply and agricultural industry.

3.4.1: Develop an integrated City water management plan and groundwater management plan for the City of Cathedral City.

Objective 3.5: Minimize the impact to vulnerable populations within the community that may be affected by severe weather-related events, such as long duration heat waves and winter storms.

3.5.1: Develop community response plans, such as cooling centers, during a heat wave.

3.5.2: Develop community response plans during winter storms to assist the vulnerable population.

- **Goal 4:** Provide Protection for Critical Facilities, Utilities, and Services from Hazard Impacts.

- **Goal 5:** Maintain Coordination of Disaster Planning.

Objective 5.1: Coordinate with changing DHS/FEMA needs.

5.1.1: National Incident Management System (NIMS).

5.1.2: Disaster Mitigation Act (DMA) planning.

5.1.3: Emergency Operations plans.

Objective 5.2: Coordinate with community plans.

5.2.1: General plans.

5.2.2: Drought plans.

5.2.3: Drainage plans.

5.2.4: Intergovernmental agency disaster planning.

Objective 5.3: Maximize the use of shared resources between Cathedral City and special districts for mitigation/communication.

5.3.1: Develop Mutual/Automatic Aid agreements with adjacent Cathedral City and agencies.

Objective 5.4: Standardize systems among agencies to provide for better interoperability.

5.4.1: Standardize communication technology and language.

- **Goal 6:** Maintain/Provide for FEMA Eligibility and Work to Position City Departments and Community Partners for Grant Funding.

7.2 MITIGATION ACTIONS

Cathedral City has many on-going mitigation programs that help create a more disaster-resistant region. The following list highlights those programs identified as Existing Programs in the mitigation strategy spreadsheet. Others are on-going programs that are currently underfunded. It is Cathedral City's priority to find additional funding to sustain these on-going programs over time.

- Vulnerability assessments of County facilities and infrastructure.
- Non-structural mitigation for building contents.
- Installation of micro and/or surveillance cameras at critical public assets tied to web-based software.

Coordination with the State Division of Safety of Dams to ensure that cities and counties are aware of the timeline for the maintenance and inspection of dams whose failure would impact Cathedral City.

7.3 ON-GOING MITIGATION STRATEGY PROGRAMS

The Cathedral City planning team will prioritize specific mitigation tasks for the next 5 years. This list will include an implementation process, funding strategy, responsible agency, and approximate time frame.

Replace Storm Drains on various Streets

Issue/Background: The 24- and 15-inch storm drain lines on streets, respectively, have collapsed causing street flooding that is damaging the asphalt streets and threatens private property during rain events.

Other Alternatives: No action

Responsible Office: City Engineer

Priority (High, Medium, Low): High

Cost Estimate: $192,000

Potential Funding: FEMA Pre-Disaster Mitigation grants

Benefits (Avoided Losses): Elimination of street flooding will reduce water damage to the asphalt street (estimate replacement cost of $196,000) and possible damage to private property (homes, apartments, and professional offices).

Schedule: 12 months after funding secured

SECTION 8.0 - INCORPORATION INTO EXISTING PLANNING MECHANISMS

Cathedral City and the County have several planning mechanisms which incorporate the:

- General plan safety element
- Capital Improvements Plan
- Riverside County Community Action Plan
- Riverside County Strategic Vision
- Title 8 – Buildings and Construction Codes
    - Chapter 8.02 California Building Standard Code
    - Chapter 8.04 California Building Code 2010 Edition
    - Chapter 8.12 California Fire Code 2010 Edition
    - Chapter 8.24 Floodplain Management
    - Chapter 8.50 Sewer Connections
    - Chapter 8.57 Water Efficient Landscape
- Title 15 Water and Sewers
    - Chapter 15.10 Storm Water Management and Discharge Controls

The County has a Safety Element in its General Plan that includes a discussion of fire, earthquake, flooding, and landslide hazards. This plan was adopted as an implementation appendix to the Safety Element. In addition, the County enforces the requirements of the California Environmental Quality Act (CEQA), which, since 1988, requires mitigation for identified natural hazards. The County has used these pre-existing programs as a basis for identifying gaps that may lead to disaster vulnerabilities in order to work on ways to address these risks through mitigation.

(See Figure 6.1.1- Cathedral City's Regulatory Mitigation Capabilities, Page 28)

SECTION 9.0 - PLAN IMPLEMENTATION AND MAINTENANCE PROCESS

The Plan Implementation and Maintenance section details the formal process that will ensure that the Cathedral City Local Hazard Mitigation Plan remains a relevant document and will be updated as Federal, State and Local regulations and guidelines change and a complete maintenance view of the plan shall occur every 5 years.

In addition, this section describes how Cathedral City will integrate public participation throughout the plan maintenance and implementation process.

IMPLEMENTATION

The plan will be implemented upon FEMA approval and adoption by Cathedral's City Council. It is the goal of Cathedral City to assimilate mitigation strategies into the day-to-day functions. Priorities will be achieved by monitoring agendas, attending public meetings and review programs and policies that pertain to mitigation strategies.

MAINTENANCE PROCESS

Cathedral City will monitor and evaluate the plan's implementation and update as progress changes in mitigation actions, priorities change or Federal, State or local regulations and codes change.

Maintenance Schedule

Every five years a review of the entire plan will be conducted to make updates. This will be achieved by the following:

- Attending all Operational Area Planning Committee Local Hazard Mitigation meetings that will provide the City relevant information, tools and templates to update plan.
- The Cathedral City planning team will review goals and objectives to address priorities and make change as necessary.
- Plan will be available for public comment during the review process.
- New studies and data will be included in update.
- Hazards and risks will be reviewed to determine if the priorities or risks have changed.
- Review of existing and new resources for capital improvement projects.
- Provide updates on prior mitigation proposals and actions.

Changes will be made to the plan to accommodate for actions that are no longer relevant due to shifting agendas, funding or no longer considered feasible.

SECTION 10.0 - CONTINUED PUBLIC INVOLVEMENT

Cathedral City is dedicated to directly involving the public in the continual reviewing and updating of the Local Hazard Mitigation Plan. We will continue to involve the public by announcement through community outreach, public meetings and official website to allow the public to have the opportunity to provide feedback about the plan.

APPENDIX A – EAGLE CANYON DAM STUDY

SEE ATTACHMENT

APPENDIX B - INVENTORY WORKSHEET

SEE ATTACHMENT – PART II

APPENDIX C – PLAN REVIEW TOOL

SEE ATTACHMENT